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RAW SEQUENCE LISTING

DATE: 02/07/2002

PATENT APPLICATION: US/10/046,649

TIME: 11:08:26

Input Set : N:\Crf3\RULE60\10046649.raw Output Set: N:\CRF3\02072002\J046649.raw

			SEQUENCE LISTING
	3	(1) GENE	RAL INFORMATION:
	5	(i)	APPLICANT: Young, Richard S.
-	7	(ii)	TITLE OF INVENTION: Stress Proteins and Uses Therefor
	9	(iii)	NUMBER OF SEQUENCES: 4
	11	(iv)	CORRESPONDENCE ADDRESS:
	12		(A) ADDRESSEE: Hamilton, Brook, Smith & Reynolds, P.C.
٠.	13		(B) STREET: 2 Militia Drive
	14		(C) CITY: Lexington
	15		(C) CTIT: Lexington  (D) STATE: MA  (E) COUNTRY: USA  (F) ZIP: 02173  COMPUTER READABLE FORM:
	16		(E) COUNTRY: USA
	17		(F) ZIP: 02173
	19	(V)	COMPUTER READABLE FORM:
	20		(A) MEDIUM TYPE: Floppy disk
	21		(B) COMPUTER: IBM PC compatible
	22	•,	(C) OPERATING SYSTEM: PC-DOS/MS-DOS
	23		(D) SOFTWARE: PatentIn Release #1.0, Version #1.25
	25	(vi)	CURRENT APPLICATION DATA:
C>	26	•	(A) APPLICATION NUMBER: US/10/046,649
C>	27		(B) FILING DATE: 14-Jan-2002
	38		(C) CLASSIFICATION: 435
C>		(vii)	PRIOR APPLICATION DATA:
	31		(A) APPLICATION NUMBER: 08/336,251
	32		(B) FILING DATE:
	36		(A) APPLICATION NUMBER: US 08/073,381
	37		(B) FILING DATE: 04-JUN-1993
	42		(A) APPLICATION NUMBER: US 07/804,632
	43	•	(B) FILING DATE: 09-DEC-1991
	46		(A) APPLICATION NUMBER: US 07/366,581
	47		(B) FILING DATE: 15-JUN-1989
	50		(A) APPLICATION NUMBER: US 07/207,298
	51		(B) FILING DATE: 15-JUN-1988
	54		(A) APPLICATION NUMBER: PCT/US89/02619
<b>a</b> .	55		(B) FILING DATE: 15-JUN-1989
C>		(V111)	ATTORNEY/AGENT INFORMATION:
	58 59		(A) NAME: Granahan, Patricia
	60		(B) REGISTRATION NUMBER: 32,227
C>		/i->	(C) REFERENCE/DOCKET NUMBER: WHI88-08AFA3
C>	63	(TX)	TELECOMMUNICATION INFORMATION:
		(2) TNEOT	(A) TELEPHONE: (617) 861-6240 RMATION FOR SEQ ID NO: 1:
	68		SEQUENCE CHARACTERISTICS:
	50	(1)	DUQUENCE CHARACIERISIICS;

(A) LENGTH: 573 amino acids

69

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70		(B) 5														
71		(D) :														
73	(ii) M	OLEC	ULE	TYPE	i: pi	TOLE	. CE TII	Λ TD	NO.	1.						
78	(xi) S Met L	EQUE	NCE T	DESC	KIP.	⊔p~ ITON	. DE Val	DP V	λra	Gln	Mot	Δrσ	Pro	Va l	Ser	Ara
80		eu A	rg L			rnr	vaı	PHE	AIG	10	Mec	arg	110	<b>,</b> 44	15	
81	1			5			mh	<b>3</b>	717		7 l s	Luc	λen	Va 1		Phe
83	Val L	eu A			ils i	Leu	THE	Arg	25	тут	AIG	цуз	ռոբ	30	цу	
84	_	_	2	20		. 1 -	<b>-</b>	14 a.b.		cln	C117	v-1	λen		T.211	Δla
86	Gly A			Ala P	arg A	Ата			Leu	GIII	GLY	VQI	45	БСи	Deu	
87	_	3	5			n1		40	Dro	TTTC	C1 17	λνα		Val	Tle	Tle
89	Asp A		al A	lia v	/a1 :			GTĀ	PIO	пÃ2	GLY	60	1111	VUL	110	110
90	5	50	_				55	T ***	v- 1	πh∽	Luc	-	Glv	Val	Thr	Va 1
92	Glu G	In S	er 1	rp (			Pro	гаг	vaı	TIIT	15 75	изр	Gry	Vul	1111	80
93	65	_	_			70	<b>T .</b>	<b>1</b>	T 0	M	•	ħ a n	T10	C1v	Δla	
96	Ala I	ys S	er l			Leu	гàг	Asp	гаг	90	пур	ASII	TIE	GIY	95	цуз
97		. <b>.</b> .			35		3	3 a a .	mb ~		C111	Clu	λla	Clv		Glv
99	Leu V	7al G	In F		/al	Ala	Asn	ASN			GIU	GIU	Ald	110	NSP	Gry
100		_	_	100	_,	1	<b>-</b>		105		. т1.	. al-	T 770			, Dho
102	Thr			Ala	Thr	vai	Leu			) Sei	. 116	; AIC	125	; ;	נ טבי	Phe
103	_		115	_	_	<b>a</b> 1		120		3701	C1.	. т1с			r G1s	, Val
105	Glu		IIe	Ser	Lys	GIY			Pro	) va.	L GIU	140	J S WIÄ	, ALG	, (1)	y Val
106		130	_		_		135					_		. Clr	SOI	r T.ve
108		Leu	Ala	Val	Asp			. TT6	S ATC	i GIO			e nys	o GII	1 56.	160
109	145	_				150					155		n mhi	r T1c	S C C	
111	Pro	Val	Thr	Thr		GIu	GIU	TTE	S Alc			LAIC	2 1111	TITE	17:	r Ala
112		_			165		<b>~</b> 1			170		. 10	- λl·	Mot		
114	Asn	Gly	Asp		Glu	116	: GIY	ASI	1 TT6	- 5`TT€	e 261	ASI	b wre	190	Лу	s Lys
115		_		180			-1	m1	185		- 7		. T.			ı Acn
117	· Val			Lys	GLY	vaı	. 116			г гъй:	S AS	y GI	у шу. 20!	2 1111	. пе	ı Asn
118			195				- 1	200		_ T	~ Dh	. 70	-		, m.,	r Tla
120	Asp		Leu	Glu	тте	116			/ ме	ь груз	5 PIR	220	U D WI	y Gry	, TY.	r Ile
121		210				_	215		. T	- 01.				c Gli	ı Dh	a Gln
124		Pro	Tyr	Phe	He			: Se	r. r.Ā:	s GI	23		з су.	2 910	7 - 110	e Gln 240
125	225		_		_	230				~ T			r Co	r T14	s G1:	
127	Asp	Ala	Tyr	Val			ı sei	GII	т гъй:			e 5e.	. SC.	r 110	25	n Ser
128	_	_			245		1 -	1 .	. 3 ~.	25		n 70 m/r	or T 177	c Dro		
130	Ile	Val	Pro		Leu	GIU	1 TTE	A A L			2 n1:	S AL	у цу.	270	ת שם כי	u Val
131	_			260		1			269		. T.O.	. 60	r ጥክ			l Len
133	Ile	Ile	Ala	Glu	Asp	val	L AS	) GT	A GTI	1 AL	a ne	ı se.	28	5 5	ı va	l Leu
134			275	_		<b>01</b> -	. <b>.</b>	201	J - 375	1 1/2	ו או	- V-			a Dra	o Glv
136	Asn		Leu	Lys	Val	GIZ			n va.	L Va	T AT	a va. 30	v T nå:	S AIG	Z FI	o Gly
137		290			_	_	295				~ 7 ~			э т1,	ο <b>Δ</b> Ι.	a Thr
139		Gly	Asp	Asn	Arg	Lys	S ASI	1 GI	n re	и гу	S AS	р ме	C AI	а тт	S AI	a Thr 320
140	305					310		1	<b>a</b> 1.		31			n Tai	. C1	
142	Gly	Gly	Ala	Val			GIL	1 GT	I GT	у це	u III. n	т ге	u AS	יי הפו	33	u Asp
143				•	325	). _	. 61	- <b>-</b> -	~ 17-	33		, W-	1 71	o 175		
145	Val	Gln	Pro			Let	ı GIŞ	у гу	s va.	E GT	y GI	u Va	1 1 T	e va. 35	U T 111	r Lys
146		_		340	-	-	. <b>.</b>	- 01	34		,, A.	n T **	e 1			برای م
148	Asp	Asp	Ala	мet	ьeu	теі	тгХг	s GI	у гу	a GI	y AS	h nà	2 MT	u G1		e Glu

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PATENT APPLICATION: US/10/046,649

149				355					360					365			
151		Lys	Arg	Ile	Gln	Glu	Ile	Ile	Glu	Gln	Leu	Asp	Val	Thr	Thr	Ser	Glu
152			370					375					380				
154		Tyr	Glu	Lys	Glu	Lys	Leu	Asn	Glu	Arg	Leu		Lys	Leu	Ser	Asp	
155		385					390					395					400
157		Val	Ala	Val	Leu	Lys	Val	Gly	Gly	Thr	Ser	Asp	Val	Glu	Val		Glu
158						405					410					415	
160		Lys	Lys	Asp	Arg	Val	Thr	Asp	Ala	Leu	Asn	Ala	Thr	Arg	Ala	Ala	Val
161					420					425					430		_
163		Glu	Glu	Gly	Ile	Val	Leu	Gly	Gly	Gly	Cys	Ala	Leu	Leu	Arg	Cys	Ile
164				435					440					445			
166		Pro	Ala	Leu	Asp	Ser	Leu	Thr	Pro	Ala	Asn	Glu		Gln	Lys	Ile	Gly
167			450					455					460				_
169		Ile	Glu	Ile	Ile	Lys	Arg	Thr	Leu	Lys	Ile	Pro	Ala	Met	Thr	Ile	Ala
170		465					470					475					480
172		Lys	Asn	Ala	Gly	Val	Glu	Gly	Ser	Leu		Val	Glu	Lys	Ile	Met	Gln
173				•		485					490				_	495	
175		Ser	Ser	Ser	Glu	Val	Gly	Tyr	Asp	Ala	Met	Ala	Gly	Asp	Phe	Val	Asn
176					500					505					510		- <b>-</b>
178		Met	Val	Glu	Lys	Gly	Ile	Ile		Pro	Thr	Lys	Val		Arg	Thr	Ala
179				515					520				_	525			
181		Leu	Leu	Asp	Ala	Ala	Gly	Val	Ala	Ser	Leu	Leu		Thr	Ala	Glu	Val
182			530					535					540				
184		Val	Val	Thr	Glu	Ile		Lys	Glu	Glu	Lys		Pro	GLY	Met	GIY	Ala
185		545					550				<b>-</b>	555		_,			560
107		34-4	<b>01</b>	~ 1										Una			
187		мес	GIY	GTĀ	Met		GIY	Gly	мет	GIY		GTA	Met	FIIC			
188			_			565				СТУ	570	GIĀ	Met	rne			
188	(2)	INFO	- RMAT:	ION	FOR :	565 SEQ :	ID NO	D: 2	:	GIÀ		GIÀ	Met	riic			
188 190 192	(2)	INFO	RMAT: SEQI	ION I	FOR S	565 SEQ : ARAC	ID NO	D: 2	: S:			GIY	Mec	rne			
188 190 192 193	(2)	INFO	RMAT: SEQI (A	ION I JENCI ) LEI	FOR S E CH NGTH	565 SEQ : ARAC' : 54	ID NO FERIS 7 am:	D: 2 STIC:	: S:			GIY	met	riic			
188 190 192 193 194	(2)	INFO	RMAT: SEQI (A (B	ION I UENCI ) LEI	FOR SECHION	565 SEQ : ARAC' : 54	ID NO TERIS 7 am:	D: 2 STIC: ino a	: S:			GIY	met.	riie			
188 190 192 193 194 195	(2)	INFO	RMAT: SEQI (A (B (D	ION DENCE TO TY	FOR SECTIONS OF THE SECTION OF THE S	565 SEQ ARAC' : 54 amin GY:	ID NO TERIS 7 am: 5 ac: linea	D: 2 STIC: ino a id ar	: S:			GIY	met.	,	-		
188 190 192 193 194 195	(2)	INFO: (i)	RMATI SEQU (A (B (D MOL	ION DENC.  LEI  TY:  TO:  ECUL	FOR SECTIONS OF THE SECTION OF TY	565 SEQ ARAC' : 54' amin GY:	ID NO TERIS 7 am: o ac: linea prote	D: 2 STIC: ino a id ar ein	: S: acid:	s	570	GIY	met	,	-		
188 190 192 193 194 195 197 201	(2)	(ii) (ii) (xi)	RMATI SEQUE (A) (B) (D) MOLE	ION DENCE TY TO THE TYPE TYPE TYPE TYPE TYPE TYPE TYPE TYP	FOR S E CHA NGTH PE: S POLOGE E TY	565 SEQ ARACT SHIP SY: SCRI	ID NO FERIS Tam: coac: lines prote	D: 2 STIC: ino a id ar ein N: SI	: S: acid:	s D NO	570 : 2:				Val	Lvs	Met
188 190 192 193 194 195 197 201 203	(2)	(ii) (xi) Met	RMATI SEQUE (A) (B) (D) MOLE	ION DENCE TY TO THE TYPE TYPE TYPE TYPE TYPE TYPE TYPE TYP	FOR S E CHA NGTH PE: S POLOGE E TY	565 SEQ ARAC' : 54' amino GY: PE: ] SCRI Asp	ID NO FERIS Tam: coac: lines prote	D: 2 STIC: ino a id ar ein N: SI	: S: acid:	s D NO	570 : 2: Asn				Val		Met
188 190 192 193 194 195 197 201 203 204	(2)	(ii) (ii) (xi) Met	RMAT: SEQU (A (B (D MOLI SEQU Ala	ION DUENCE TO	FOR SECTION OF THE POLOGE TY  E DE LYS	565 SEQ : ARAC' : 54 amino GY: PE:   SCRI Asp 5	ID NOTERIST am.  o ac: linea prote PTIO	D: 2 STICS ino a id ar ein N: SI	: S: acid: EQ II Phe	D NO Gly	570 : 2: Asn 10	Asp	Ala	Arg		15	
188 190 192 193 194 195 197 201 203 204 207	(2)	(ii) (ii) (xi) Met	RMAT: SEQU (A (B (D MOLI SEQU Ala	ION DUENCE TO	FOR SECTION OF THE POLOGE TY E DE Lys	565 SEQ : ARAC' : 54 amino GY: PE:   SCRI Asp 5	ID NOTERIST am.  o ac: linea prote PTIO	D: 2 STICS ino a id ar ein N: SI	: S: acid: EQ II Phe	o NO Gly	570 : 2: Asn 10	Asp	Ala	Arg	Thr	15	Met Gly
188 190 192 193 194 195 197 201 203 204 207 208	(2)	(ii) (ii) (xi) Met 1 Leu	RMAT: SEQU (A (B (D MOL: SEQU Ala	ION : UENC: ) TY: ) TO: ECUL: UENC: Ala	FOR SECTION FOR THE PE: FOLLOW FOR TY E DE LYS	565 SEQ : ARAC: : 54 amino GY: PE: ] SCRI: Asp 5 Asn	ID NOTERIST AMEDIAN ACTION ACTION OF THE PTION Val	D: 2 STICS ino a id ar ein N: SI Lys	: S: acid: EQ II Phe Ala	S . D NO Gly Asp 25	570 : 2: Asn 10 Ala	Asp Val	Ala Lys	Arg Val	Thr	15 Leu	Gly
188 190 192 193 194 195 197 201 203 204 207 208 210	(2)	(ii) (ii) (xi) Met 1 Leu	RMAT: SEQU (A (B (D MOL: SEQU Ala	ION DENCE TO	FOR SECTION OF THE POLOGE TY E DE Lys	565 SEQ : ARAC: : 54 amino GY: PE: ] SCRI: Asp 5 Asn	ID NOTERIST AMEDIAN ACTION ACTION OF THE PTION Val	D: 2 STICS ino a id ar ein N: SI Lys	: S: acid: EQ II Phe Ala Leu	S . D NO Gly Asp 25	570 : 2: Asn 10 Ala	Asp Val	Ala Lys	Arg Val	Thr	15 Leu	Gly
188 190 192 193 194 195 197 201 203 204 207 208 210 211	(2)	(ii) (ii) (xi) Met 1 Leu Pro	RMAT: SEQU (A (B (D MOL! SEQU Ala Arg	ION DENCE TO	FOR SECONDARY SE	565 SEQ ARAC' : 54' amino GY: PE:   SCRI: Asp 5 Asn	ID NOTERIS 7 am: 5 ac: 6 ac: 6 prote 7 TION 7 Val 7 Val	O: 2 STICS ino a id ar ein N: SI Lys Leu Val	: S: acid: EQ II Phe Ala Leu 40	D NO Gly Asp 25 Asp	570 : 2: Asn 10 Ala Lys	Asp Val Ser	Ala Lys Phe	Arg Val Gly 45	Thr 30 Ala	15 Leu Pro	Gly Thr
188 190 192 193 194 195 197 201 203 204 207 208 210 211 213	(2)	(ii) (ii) (xi) Met 1 Leu Pro	RMAT: SEQUA (A) (B) (D) MOL: SEQUA Ala Arg Lys	ION DENCE TO	FOR SECONDARY SE	565 SEQ ARAC' : 54' amino GY: PE:   SCRI: Asp 5 Asn	ID NOTERIS 7 am: 5 ac: 6 ac: 6 prote 7 TION 7 Val 7 Val	D: 2 STICS ino a id ar ein N: Si Lys Leu Val	: S: acid: EQ II Phe Ala Leu 40	D NO Gly Asp 25 Asp	570 : 2: Asn 10 Ala Lys	Asp Val Ser	Ala Lys Phe Ile	Arg Val Gly 45	Thr 30 Ala	15 Leu Pro	Gly
188 190 192 193 194 195 197 201 203 204 207 208 210 211 213 214	(2)	(ii) (ii) (xi) Met 1 Leu Pro	RMAT: SEQUE (A (B (D MOLE SEQUE Ala Arg Lys Thr 50	ION DENCE TO	FOR : E CHA NGTH PE: A POLOGE E TY: E DE: Lys  Val 20 Arg	565 SEQ : ARAC': 54' amino GY: : PE: : SCRI: Asp 5 Asn Asn Gly	ID NOTERIS 7 am: 0 ac: linea prote PTIO Val  Val  Val	O: 2 STICS ino a id ar ein N: Si Lys Leu Val Ser 55	EQ II Phe Ala Leu 40 Val	S D NO Gly Asp 25 Asp	: 2: Asn 10 Ala Lys	Asp Val Ser Glu	Ala Lys Phe Ile	Arg Val Gly 45 Glu	Thr 30 Ala Pro	15 Leu Pro Glu	Gly Thr Asp
188 190 192 193 194 195 197 201 203 204 207 208 210 211 213 214 216	(2)	(ii) (ii) (xi) Met 1 Leu Pro Ile	RMAT: SEQUE (A (B (D MOLE SEQUE Ala Arg Lys Thr 50	ION DENCE TO	FOR : E CHA NGTH PE: A POLOGE E TY: E DE: Lys  Val 20 Arg	565 SEQ : ARAC': 54' amino GY: : PE: : SCRI: Asp 5 Asn Asn Gly	ID NOTERIS 7 am: 50 ac: 1inea prote PTION Val  Val  Val  Val  Gly	O: 2 STICS ino a id ar ein N: Si Lys Leu Val Ser 55	EQ II Phe Ala Leu 40 Val	S D NO Gly Asp 25 Asp	: 2: Asn 10 Ala Lys	Asp Val Ser Glu Lys	Ala Lys Phe Ile	Arg Val Gly 45 Glu	Thr 30 Ala Pro	15 Leu Pro Glu	Gly Thr Asp Lys
188 190 192 193 194 195 197 201 203 204 207 210 211 213 214 216 217	(2)	(ii) (ii) (xi) Met 1 Leu Pro Ile Lys 65	RMAT: SEQUA (B) (D) MOLI SEQUA Arg Lys Thr 50 Phe	ION : UENC: ) TY: ) TO: ECUL: UENC: Ala Gly Gly 35 Lys Glu	FOR : E CHANGTH PE: POLOO E TY E DE Lys Val 20 Arg Asp	565 SEQ : ARAC' : 54' amino GY: : PE:   SCRII Asp 5 Asn Asn Gly Met	ID NOTERIS 7 am: 0 ac: linea prote PTION Val  Val  Val  Gly 70	O: 2 STICS ino a id ar ein N: SS Leu Val Ser 55 Ala	EQ II Phe Ala Leu 40 Val	S NO Gly Asp 25 Asp Ala	: 2: Asn 10 Ala Lys Arg	Asp Val Ser Glu Lys 75	Ala Lys Phe Ile 60 Glu	Arg Val Gly 45 Glu Val	Thr 30 Ala Pro	15 Leu Pro Glu Ser	Gly Thr Asp Lys 80
188 190 192 193 194 195 197 201 203 204 207 211 213 214 216 217 219	(2)	(ii) (ii) (xi) Met 1 Leu Pro Ile Lys 65	RMAT: SEQUA (B) (D) MOLI SEQUA Arg Lys Thr 50 Phe	ION : UENC: ) TY: ) TO: ECUL: UENC: Ala Gly Gly 35 Lys Glu	FOR : E CHANGTH PE: POLOO E TY E DE Lys Val 20 Arg Asp	565 SEQ ARACT ARACT SCRI SCRI ASP ASN ASN Gly Met Ala	ID NOTERIS 7 am: 0 ac: linea prote PTION Val  Val  Val  Gly 70	O: 2 STICS ino a id ar ein N: SS Leu Val Ser 55 Ala	EQ II Phe Ala Leu 40 Val	S NO Gly Asp 25 Asp Ala	: 2: Asn 10 Ala Lys Arg Val Thr	Asp Val Ser Glu Lys 75	Ala Lys Phe Ile 60 Glu	Arg Val Gly 45 Glu Val	Thr 30 Ala Pro	15 Leu Pro Glu Ser Leu	Gly Thr Asp Lys
188 190 192 193 194 195 197 201 203 204 207 211 213 214 216 217 219 220	(2)	(ii) (ii) (xi) Met 1 Leu Pro Ile Lys 65 Ala	RMAT: SEQUA (B) (D) MOLI SEQUALA Arg Lys Thr 50 Phe	ION DENCE TO	FOR : E CHANGTH PE: A POLOGE E TY E DE Lys Val 20 Arg Asp Asn Ala	565 SEQ : ARAC': 54' amino GY: : PE:   SCRII Asp 5 Asn Gly Met Ala 85	ID NOTERIS 7 am: 7 am: 90 ac: linea prote PTION Val  Val  Val  Gly 70 Gly	D: 2 STICS ino a id ar ein N: SS Leu Val Ser 55 Ala Asp	EQ II Phe Ala Leu 40 Val Gln	NO Gly Asp 25 Asp Ala Met	: 2: Asn 10 Ala Lys Arg Val Thr 90	Asp Val Ser Glu Lys 75 Thr	Ala Lys Phe Ile 60 Glu	Arg Val Gly 45 Glu Val Thr	Thr 30 Ala Pro Ala Val	15 Leu Pro Glu Ser Leu 95	Gly Thr Asp Lys 80 Ala
188 190 192 193 194 195 197 201 203 204 207 218 210 211 213 214 216 217 219 220 223	(2)	(ii) (ii) (xi) Met 1 Leu Pro Ile Lys 65 Ala	RMAT: SEQUA (B) (D) MOLI SEQUALA Arg Lys Thr 50 Phe	ION DENCE TO	FOR SECHLONGTH PE: POLOGE TY E DE: Lys Val 20 Arg Asp Asn Ala	565 SEQ ARACT ARACT SCRI SCRI ASP ASN ASN Gly Met Ala 85 Thr	ID NOTERIS 7 am: 7 am: 90 ac: linea prote PTION Val  Val  Val  Gly 70 Gly	D: 2 STICS ino a id ar ein N: SS Leu Val Ser 55 Ala Asp	EQ II Phe Ala Leu 40 Val Gln	D NO Gly Asp 25 Asp Ala Met Thr	: 2: Asn 10 Ala Lys Arg Val Thr 90	Asp Val Ser Glu Lys 75 Thr	Ala Lys Phe Ile 60 Glu	Arg Val Gly 45 Glu Val Thr	Thr 30 Ala Pro Ala Val	15 Leu Pro Glu Ser Leu 95	Gly Thr Asp Lys 80
188 190 192 193 194 195 197 201 203 204 207 211 213 214 216 217 219 220	(2)	(ii) (ii) (xi) Met 1 Leu Pro Ile Lys 65 Ala Gln	RMAT: SEQUAL (B) (D) MOL: SEQUAL Arg Lys Thr 50 Phe Asn Ala	ION JENC: ) LE ) TY ) TO ECUL UENC: Ala Gly Gly 35 Lys Glu Asp	FOR : E CH. NGTH PE: POLOGE E TY E DE Lys Val 20 Arg Asp Asn Ala Ile 100	565 SEQ ARACT SATA STATE ARACT SCRI ASP ASN ASN Gly Met Ala 85 Thr	ID NOTERIS 7 am: 7 am: 9 ac: linea prote PTIOI Val  Val  Val Gly 70 Gly Glu	D: 2 STICS ino a id ar ein N: SI Lys Val Ser 55 Ala Asp Gly	EQ II Phe Ala Leu 40 Val Gln Gly Leu	NO Gly Asp 25 Asp Ala Met Thr Lys 105	: 2: Asn 10 Ala Lys Arg Val Thr 90 Ala	Asp Val Ser Glu Lys 75 Thr	Ala Lys Phe Ile 60 Glu Ala	Arg Val Gly 45 Glu Val Thr	Thr 30 Ala Pro Ala Val Gly 110	15 Leu Pro Glu Ser Leu 95 Met	Gly Thr Asp Lys 80 Ala

RAW SEQUENCE LISTING DATE: 02/07/2002 PATENT APPLICATION: US/10/046,649 TIME: 11:08:26

227			115					120					125			
229	Glu	Glu	Leu	Lys	Ala	Leu	Ser	Val	Pro	Cys	Ser	Asp	Ser	Lys	Ala	Ile
230		130		-			135					140				
232	Ala	Gln	Val	Gly	Thr	Ile	Ser	Ala	Asn	Ser	Asp	Glu	Thr	Val	Gly	Lys
233	145					150					155					160
235	Leu	Ile	Ala	Glu	Ala	Met	Asp	Lys	Val	Gly	Lys	Glu	Gly	Val	Ile	Thr
236					165					170					175	
238	Val	Glu	Asp	Gly	Thr	Gly	Leu	Gln	Asp	Glu	Leu	Asp	Val	Val	Glu	Gly
239				180					185					190		
241	Met	Gln	Phe	Asp	Arg	Gly	Tyr		Ser	Pro	Tyr	Phe	Ile	Asn	Lys	Pro
242			195					200					205			
244	Glu	Thr	Gly	Ala	Val	Glu	Leu	Glu	Ser	Pro	Phe		Leu	Leu	Ala	Asp
245		210					215					220			_	_
248	_	Lys	Ile	Ser	Asn	Ile	Arg	Glu	Met	Leu		Val	Leu	Glu	Ala	
249	225		_			230	_	_			235		_		~ 1	240
251	Ala	Lys	Ala	Gly		Pro	Leu	Leu	Ile		Ala	GIu	Asp	Val		GTÄ
252			_		245				_	250	-1	<b>.</b>	<b>~</b> 1	<b>-1</b> -	255	<b>T</b>
254	Glu	Ala	Leu		Thr	Ala	val	vaı		Thr	TTE	Arg	GIY		val	ьys
255	**- 7			260	T	3 1 <b>-</b>	D	<b>~1</b>	265	a1	3	7	3	270	» 1 -	Mot
257	vaı	Ата		vaı	ьуs	Ala	Pro		Pne	GIĀ	Asp	Arg		ьуѕ	Ата	Met
258	T 0	<b>01</b> -	275	т1.	, 11-	шью	T 011	280	C1	C1	mh.∽	wa 1	285	Cor	Clu	Clu
260	Leu	290	ASP	116	Ата	Thr	295	1111	СТУ	СТА	1111	300	116	ser	GIU	GIU
261 263	T10		Mot	Clu	T OIL	Glu		λla	Thr	Τ.Δ.1	Glu		T.011	Glv	Gln	Δla
264	305	Gry	Mec	GIU	пеп	310	цуз	AIG	1111	пеа	315	изь	пса	OLY	OIII	320
266	-	Arσ	Val	Val	Tle	Asn	Lvs	Asp	Thr	Thr		Tle	Tle	Asp	Glv	
267	<b>1</b> 15	9	,	,	325	11011				330				LUZE	335	
269	Glv	Glu	Glu	Ala		Ile	Gln	Glv	Ara		Ala	Gln	Ile	Arq		Gln
270	011			340				1	345					350		
272	Ile	Glu	Glu	Ala	·Thr	Ser	Asp	Tyr	Asp	Arq	Glu	Lys	Leu	Gln	Glu	Arg
273			355				•	360	•	_		•	365			
275	Val	Ala	Lys	Leu	Ala	Gly	Gly	Val	Ala	Val	Ile	Lys	Val	Gly	Ala	Ala
276		370	_				375					380				
278	Thr	Glu	Val	Glu	Met	Lys	Glu	Lys	Lys	Ala	Arg	Val	Glu	Asp	Ala	Leu
279	385					390					395					400
281	His	Ala	Thr	Arg	Ala	Ala	Val	Glu	Glu	Gly	Val	Val	Ala	Gly	Gly	Gly
282					405					410					415	
284 .	Val	Ala	Leu	Ile	Arg	Val	Ala	Ser	Lys	Leu	Ala	Asp	Leu			Gln
285				420					425					430		_
287	Asn	Glu	Asp	Gln	Asn	Val	Val		Ser	Ser	Leu	Arg		Met	Glu	Ala
288			435	_	_			440					445	_	•	•
290	Pro		Arg	Gln	Ile	Val		Asn	Cys	Gly	GLu		Pro	Ser	Val	Val
291		450			2		455	_		_	_	460	_	_		
293		Asn	Thr	Val	Lys	Gly	GTĀ	Asp	СТĀ	Asn		GLY	Tyr	Asn	Ата	
294	465	<b>a</b> 3	0.3	m	<b>01</b> -	470	14 = ±	T1.	<b>3</b> ~	Met	475	т1 -	т с	N	D	480
296	Thr	GLU	GLU	Tyr		Asn	met	тте	ASP		GTÄ	тте	ьeu	ASP		1111
297	T	17 - 1	mk~	7 ~~	485	ת ד ת	T 011	C1 n	Щттъ	490	λls	807	Va 1	λ1 =	495	Lon
299	пЛЗ	ναΙ	TIIT	500	Ser	Ala	neu	GTII	505	viq	ита	Set	val	510	GTÄ	neu
300				200					203					210		

RAW SEQUENCE LISTING DATE: 02/07/2002 PATENT APPLICATION: US/10/046,649 TIME: 11:08:26

202		Mah	<b>T</b> 1.	ml	. mb	<b>61.</b>			** . 1	-1	_	_	_	_	_		
302		met	TTE			GIU	Cys	мет			Asp	Leu	Pro	_		Asp	Ala
303		27-		515				1	520					525			_
305		АІа			GLY	Ala	АІа			Met	. GIY	GLY			GLy	Met	Gly
306		<b>al.</b> .	530					535					540				
308				Met	•												
309		545		TON	<b>DOD</b>	<b>a</b> no	TD 11										
	(2)																
313		(1)			E CH												
314			•	•	NGTH				acıd	S.							
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316		/ 2 2 3	-	-	POLO								•				
318					E TY				<b>.</b>		_						
322					E DE								_	_			
324		_	Ата	rĀR	Thr	_	Ala	Tyr	Asp	GLu		Ala	Arg	Arg	GLY		Glu
325		1	a1	<b>.</b>		5	_	- 1	_		10	_	<b>-</b>			15	
327		Arg	СТА	Leu	Asn	ser	Leu	Ата	Asp		vaı	Lys	vaı	Thr		GTĀ	Pro
328		T ***	C1	7 ~~	20	77-7	17 7	<b>.</b>	<b>a</b> 1	25	<b>.</b>	_	-1		30	_,	
331		ьуѕ	GTÀ		Asn	vaı	vaı	Leu		ьys	ьys	Trp	GLY		Pro	Thr	ITe
332 334		mh ∞	7 an	35	C1	37-1	<b></b>	т1.	40	<b>.</b>	<b>01</b>	<b>T</b> 1.	<b>~</b> 1	45	~ 3	_	_
335		1111	50	ASP	Gly	val	ser		Ата	гàг	GIU	тте		Leu	GIU	Asp	Pro
		m		T	т1.	<b>01</b>	31-	55	<b>.</b>	*** 1	<b>-</b>	<b>a</b> 1	60		_	_	
337 338		65	GIU	ьуѕ	Ile	GIY		GIU	ьeu	vaı	Lys		vaı	Ala	Lys	Lys	
340			A a n	37.2.1	<b>31</b> 0	C1	70	<i>α</i> 1	m l	m l	m\	75	m1	** . 1	_		80
341		ASP	ASP	Val	Ala	85	ASP	СТА	Thr	Thr		Ата	Thr	vaı	Leu		GIn
343		λla	T 011	Wa 1	T *** 0		<b>C1</b>	T 0	3	<b>3</b>	90	n 1 -		01		95	_
344		Ата	neu	vaı	Lys 100	GIU	СТА	ьеи	Arg		vai	Ата	Ата	GTA		Asn	Pro
346		T.Ou	Glv	Lou		λνα	C111	т1 о	C1	105	7.1.0	17-1	7 ~~	T	110	m1	01
347		neu	GIY	115	Lys	ALG	GIY	TTE	120	пÃ2	нта	Val	Asp	_	vaı	THE	GIU
350		Thr	T.011		Lys	λen	λla	Twe	-	W = 1	Clu	mh∽	Trra	125	Cl.	т1.	7 1 a
351		1111	130	DCu	цуз	изр	пта	135	GIU	Val	Gru	1111	140	GIU.	GTII	тте	Ald
353		Ala		Δla	Ala	T۱۵	Sor		Clv	λen	Cln	Sor		C111	λαn	T 011	Tla
354		145			1114	. 110	150	nru	GLY	пор	GIII	155	116	СТУ	мар	ьeu	160
356			Glu	Δla	Met	Asp		Va 1	Glv	Δen	Glu		Va 1	Tla	mhr	W= 1	
357			014		*****	165	D <sub>j</sub> S	, u.	O L y	non	170	GLY	Val	116	1111	175	GIU
359		Glu	Ser	Asn	Thr		Glv	Len	Gln	Len		T.eu	Thr	Glu	Glv		Δνα
360					180		011		<b>0111</b>	185	014	Dea		UIU	190	nec	ALG
362		Phe	Asp	Lvs	Gly	Tvr	Ile	Ser	Glv		Phe	Va 1	Thr	Asn		Glu	Δτα
363				195	1	- 1 -			200	-1-		,		205	u	Q_Lu	*****9
365		Gln	Glu		Val	Leu	Glu	Glu		Tvr	Ile	Leu	Leu		Ser	Ser	Lvs
366			210					215		- 4 -			220				_10
368		Val	Ser	Thr	Val	Lys	Asp	Leu	Leu	Pro	Leu	Leu		Lvs	Val	Ile	Gln
369		225				-	230		•			235		-1-			240
372		Ala	Gly	Lys	Ser	Leu	Leu	Ile	Ile	Ala	Glu		Val	Glu	Glv	Glu	
373						245					250	•			-	255	
375		Leu	Ser	Thr	Leu	Val	Val	Asn	Lys	Ile		Gly	Thr	Phe	Lys		Val
376					260				_	265	-	-			270		
378		Ala	Val	Lys	Ala	Pro	Gly	Phe	Gly	Asp	Arg	Arg	Lys	Ala	Met	Leu	Gln
379				275					280	_	_	_		285			

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/046,649

DATE: 02/07/2002 TIME: 11:08:27

L:26	M:220	C:	Keyword	misspelled	or	invalid	format,	[(A) APPLICATION NUMBER:]
L:2/	M:220	C:	Keyword	misspelled	or	invalid	format.	[/R) FILING DATE: 1
T:32	M:220	C:	Keyword	misspelled	or	invalid	format.	(/vii) DRIOD ADDITION DAMA
D.41	M: 220	C:	reyword	misspelled	or	invalid	format.	[/vii] DRIOD ADDITIONATON DAMA 1
D.43	M. ZZU	Ç.	reyword	misspelled	or	invalid	format.	[(Vii) DRIOR ADDITION TO TAME . 1
4.43	M: 220	C:	reyword	missbelied	or	invalid	format.	(/vii) DDTOD ADDITCAMTON DAMA 1
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L:62	M:220	C:	Keyword	misspelled	or	invalid	format,	[(ix) TELECOMMUNICATION INFORMATION:]